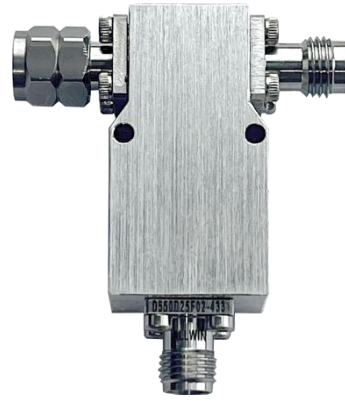


## YX-BT-50K-50G-2.4(F&M)

### Features:

- Frequency Range,50KHz~50GHz
- Low VSWR, 1.3:1@50KHz~50GHz Typ.
- Low Insertion loss, 2.0dB@50KHz~50GHz Typ.
- High Isolation,35dB@50KHz~50GHz Typ
- Compact design,17.00\*32.00\*12.70mm

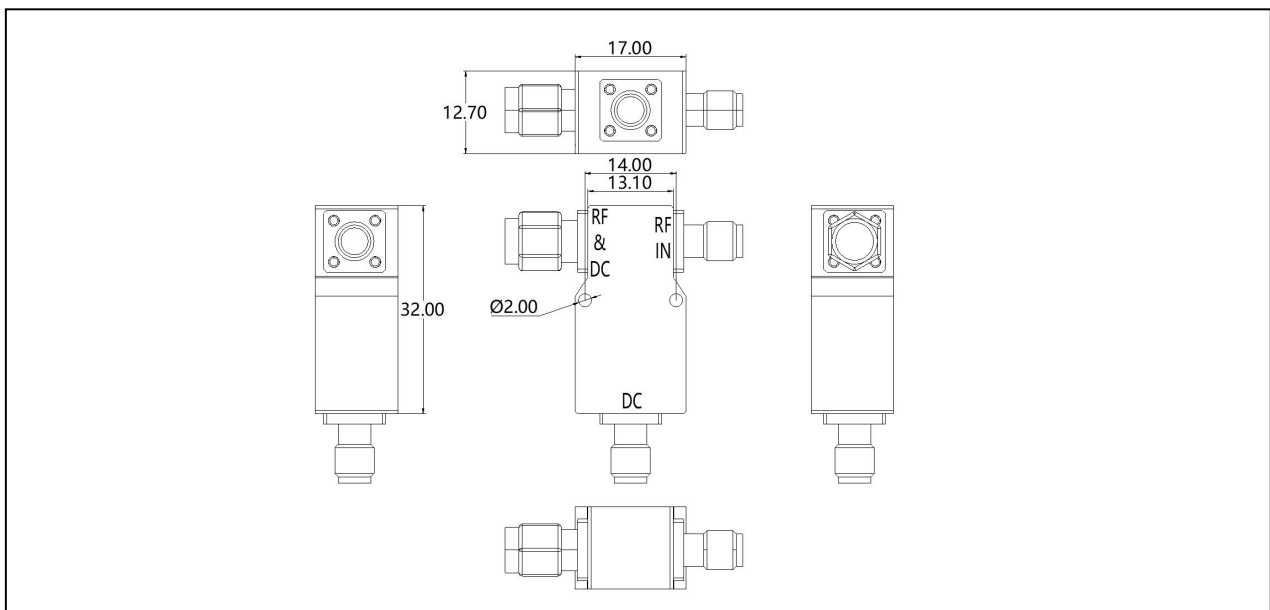


### Electrical Specifications:

| Item                      | Specification   |            |          |
|---------------------------|---|------------|----------|
| Operating frequency range | 50KHz-10MHz   | 10MHz-1GHz | 1G-50GHz |
| VSWR Max.                 | ≤2.0  | ≤1.25      | ≤1.6     |
| Insertion loss(dB) Max.   | ≤2.0  | ≤1.0       | ≤3.2     |
| Isolation(dB) Min.        | 30  |            |          |
| RF Power(W) Max.          | 2   |            |          |
| Voltage (Vdc) Max.        | 35  |            |          |
| Current (mA) Max.         | 500   |            |          |
| Impedance                 | 50Ω   |            |          |
| Connectors                | RF IN-2.4mm Female<br>RF&DC-2.4mm Male<br>DC-SMA Female |            |          |

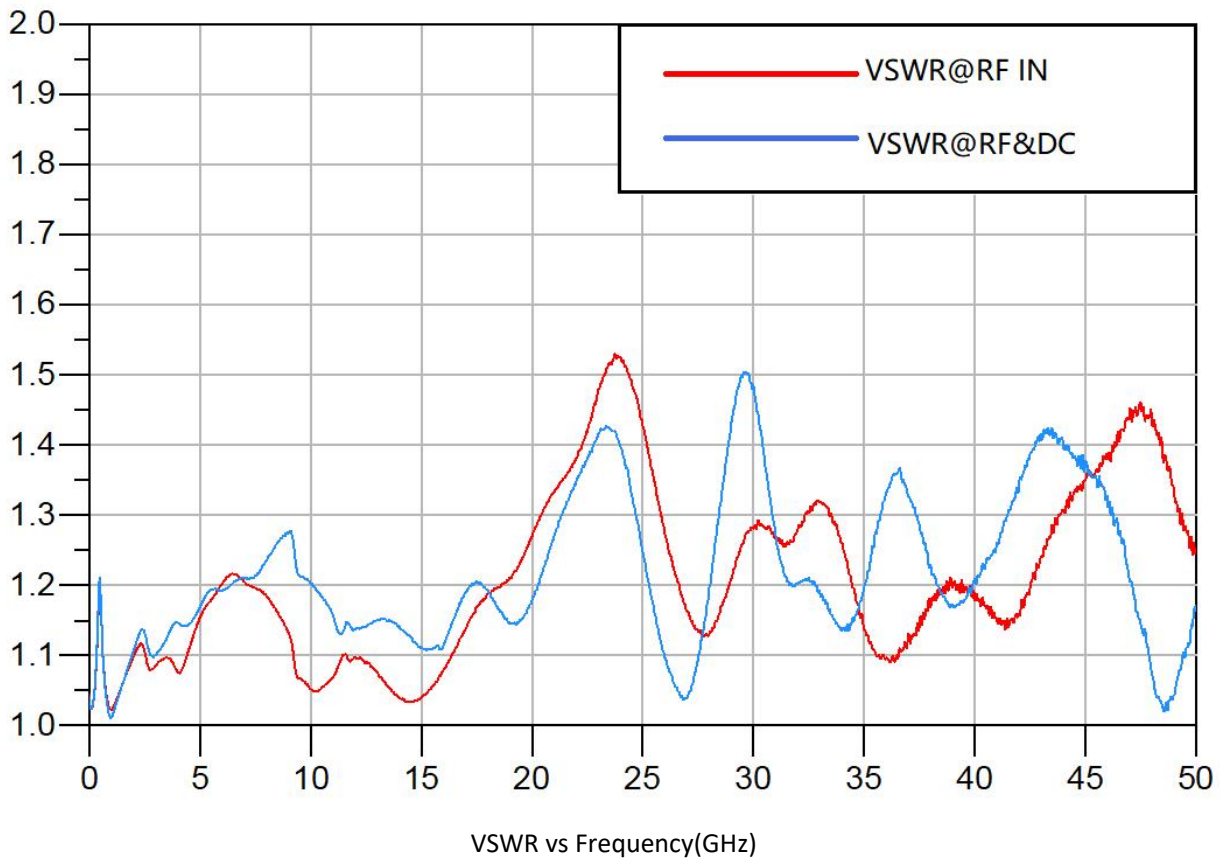
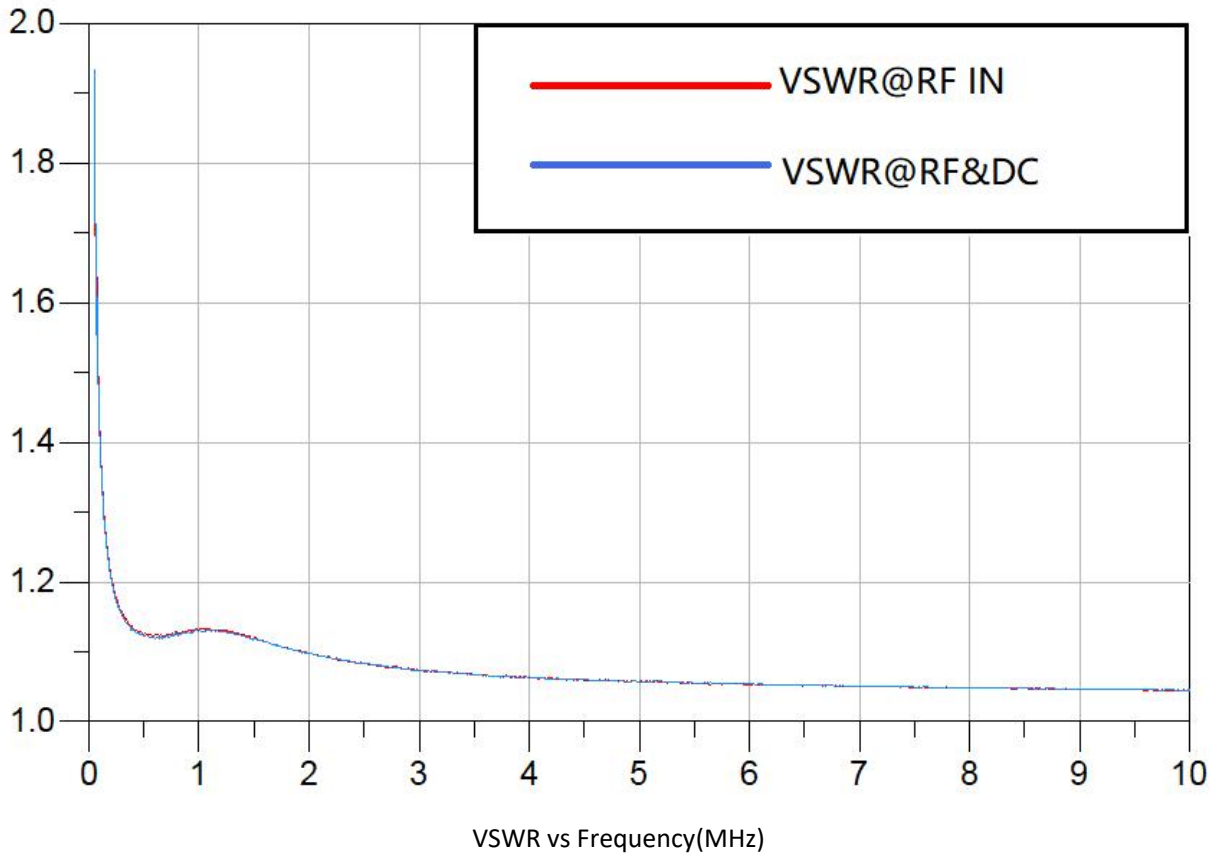
### Outline Drawing:

All Dimensions in mm:

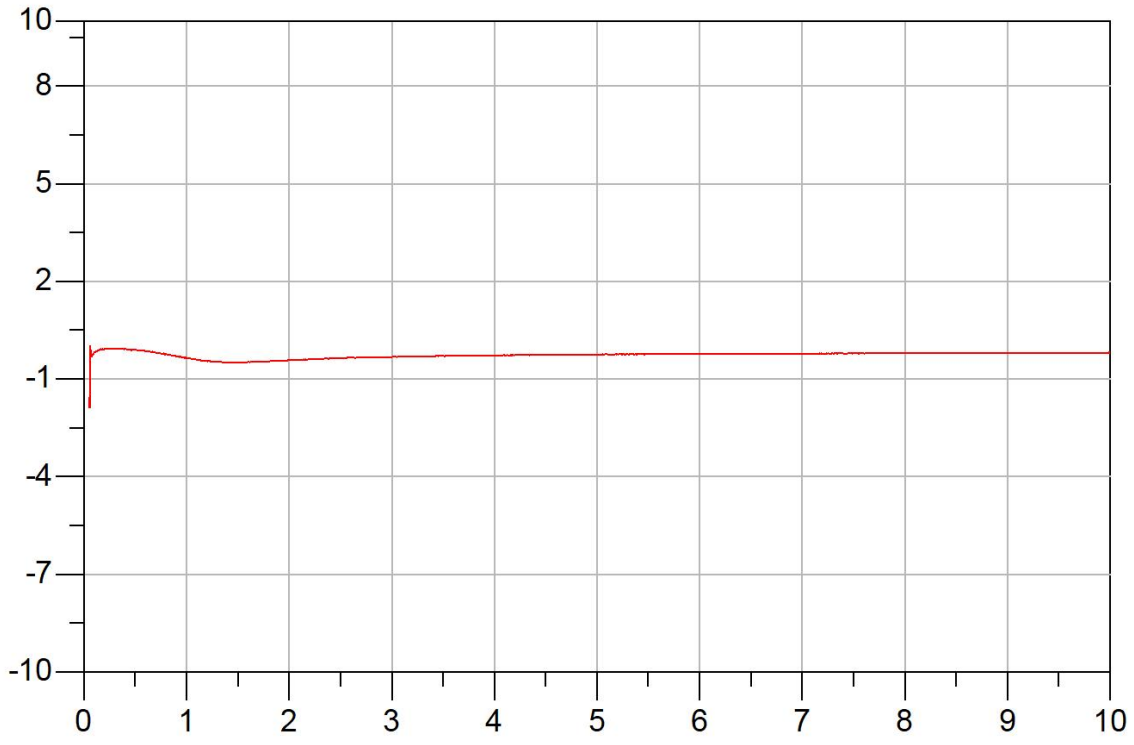


### YX-BT-50K-50G-2.4(F&M)

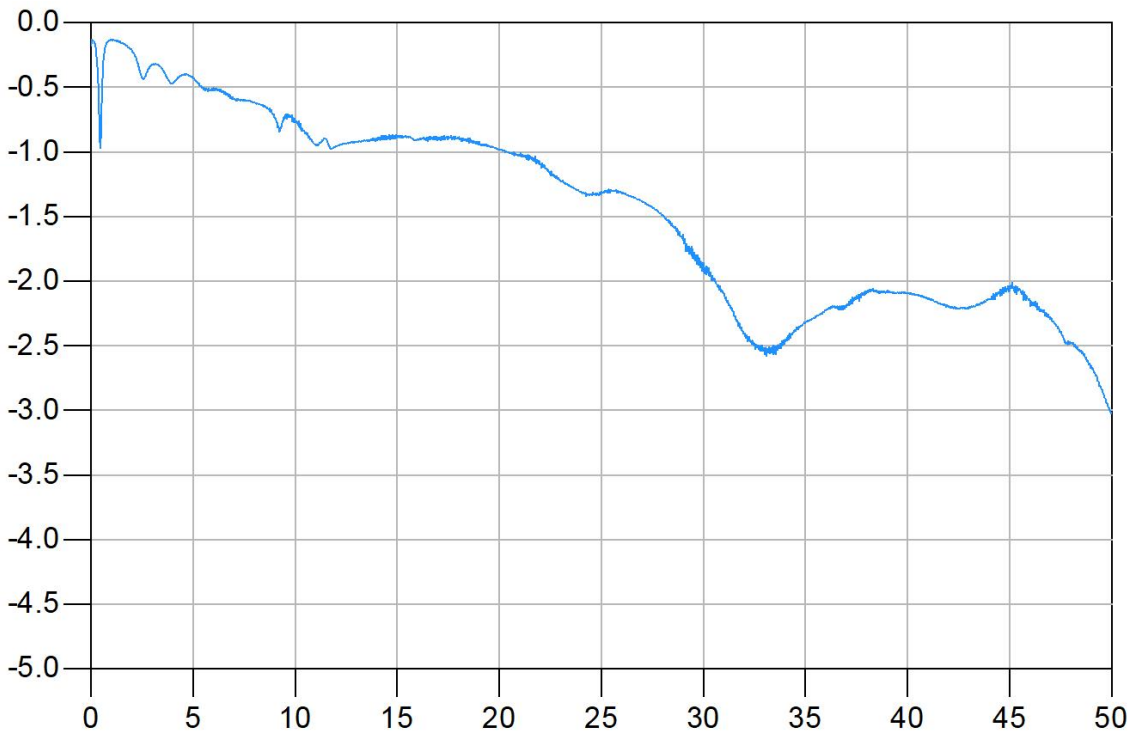
Test Data:



**YX-BT-50K-50G-2.4(F&M)**

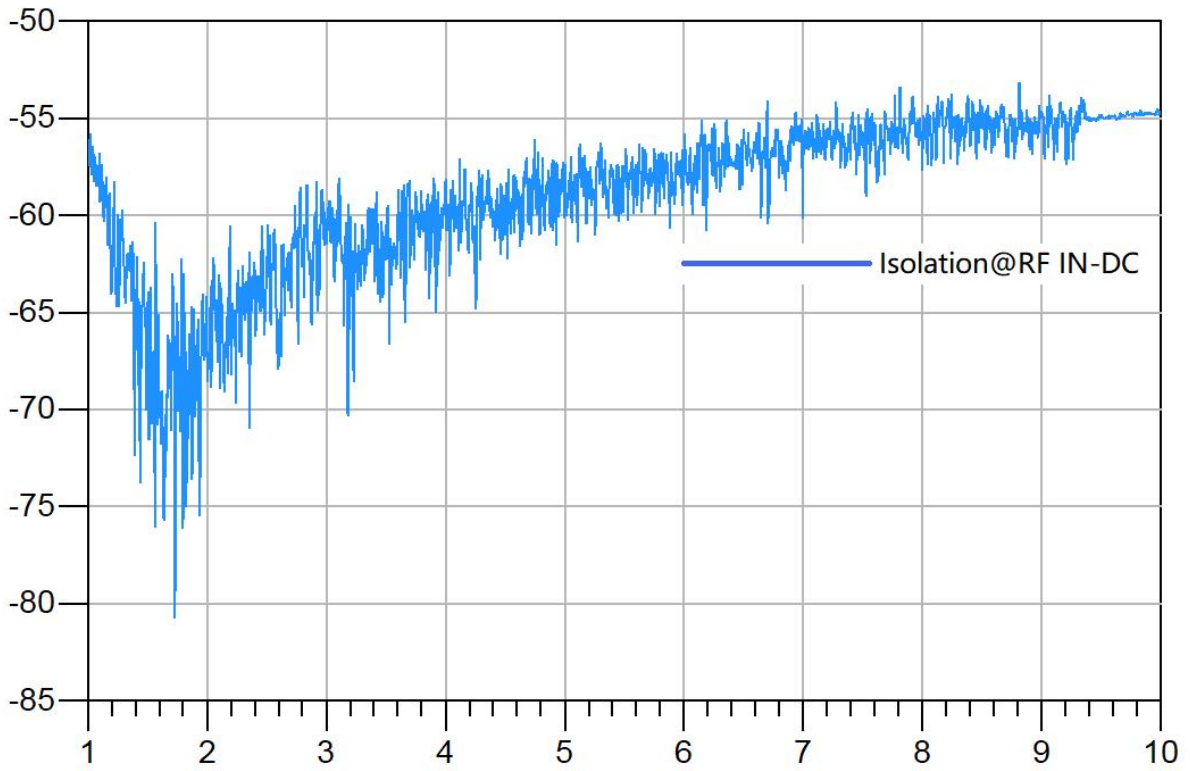


Insertion loss vs Frequency(MHz)

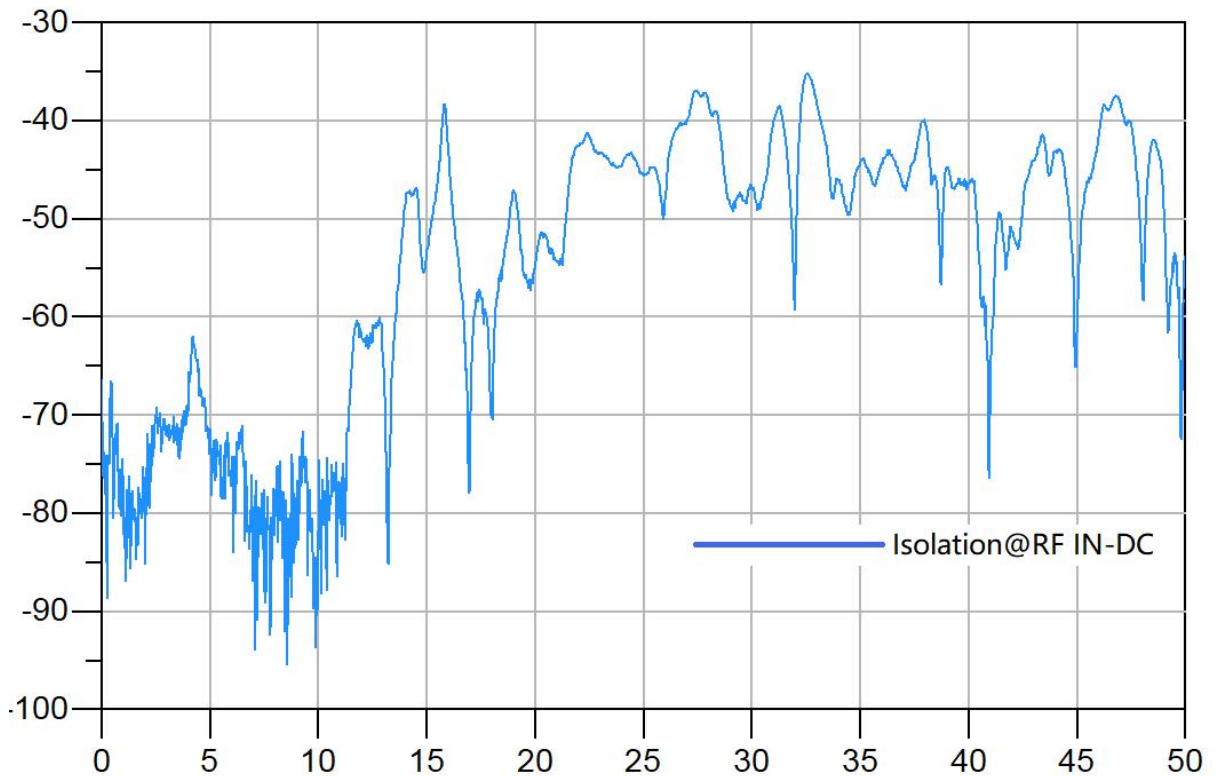


Insertion loss vs Frequency(GHz)

**YX-BT-50K-50G-2.4(F&M)**



Isolation vs Frequency(MHz)



Isolation vs Frequency(GHz)

**YX-BT-50K-50G-2.4(F&M)**

Performance Data:

| Freq   | VSWR(:1) |         | Isolation(dB) | Insertion loss(dB) |
|--------|----------|---------|---------------|--------------------|
|        | RF IN    | RF & DC | RF IN-DC      | RF IN-RF & DC OUT  |
| 50KHz  | 1.69     | 1.83    | -32.82        | -1.58              |
| 100KHz | 1.41     | 1.40    | -34.80        | -0.19              |
| 1MHz   | 1.13     | 1.13    | -57.64        | -0.37              |
| 10MHz  | 1.05     | 1.05    | -54.71        | -0.20              |
| 100MHz | 1.04     | 1.04    | -68.76        | -0.12              |
| 1GHz   | 1.02     | 1.01    | -74.89        | -0.13              |
| 2GHz   | 1.10     | 1.11    | -82.44        | -0.22              |
| 3GHz   | 1.09     | 1.10    | -71.40        | -0.33              |
| 4GHz   | 1.08     | 1.15    | -69.72        | -0.47              |
| 5GHz   | 1.16     | 1.17    | -71.22        | -0.43              |
| 6GHz   | 1.20     | 1.19    | -73.71        | -0.50              |
| 7GHz   | 1.20     | 1.21    | -79.75        | -0.59              |
| 8GHz   | 1.18     | 1.23    | -79.19        | -0.62              |
| 9GHz   | 1.13     | 1.28    | -78.13        | -0.74              |
| 10GHz  | 1.05     | 1.20    | -84.80        | -0.76              |
| 11GHz  | 1.07     | 1.16    | -84.31        | -0.96              |
| 12GHz  | 1.10     | 1.14    | -61.95        | -0.96              |
| 13GHz  | 1.08     | 1.15    | -64.84        | -0.93              |
| 14GHz  | 1.04     | 1.14    | -48.65        | -0.91              |
| 15GHz  | 1.04     | 1.11    | -53.21        | -0.89              |
| 16GHz  | 1.08     | 1.12    | -43.09        | -0.90              |
| 17GHz  | 1.14     | 1.19    | -76.97        | -0.88              |
| 18GHz  | 1.19     | 1.19    | -69.53        | -0.88              |
| 19GHz  | 1.21     | 1.15    | -47.11        | -0.92              |
| 20GHz  | 1.27     | 1.18    | -55.05        | -0.98              |
| 21GHz  | 1.33     | 1.27    | -54.48        | -1.04              |
| 22GHz  | 1.38     | 1.35    | -42.71        | -1.11              |
| 23GHz  | 1.48     | 1.42    | -43.33        | -1.23              |
| 24GHz  | 1.53     | 1.40    | -44.68        | -1.31              |

**YX-BT-50K-50G-2.4(F&M)**

| Freq  | VSWR (:1) |         | Isolation (dB) | Insertion loss (dB) |
|-------|-----------|---------|----------------|---------------------|
|       | RF IN     | RF & DC | RF IN-DC       | RF IN-RF & DC OUT   |
| 25GHz | 1.43      | 1.25    | -45.61         | -1.31               |
| 26GHz | 1.27      | 1.10    | -48.07         | -1.31               |
| 27GHz | 1.16      | 1.04    | -40.13         | -1.39               |
| 28GHz | 1.13      | 1.20    | -38.11         | -1.48               |
| 29GHz | 1.21      | 1.43    | -48.64         | -1.64               |
| 30GHz | 1.28      | 1.49    | -46.85         | -1.86               |
| 31GHz | 1.27      | 1.27    | -40.11         | -2.09               |
| 32GHz | 1.28      | 1.20    | -57.35         | -2.41               |
| 33GHz | 1.32      | 1.19    | -38.38         | -2.57               |
| 34GHz | 1.26      | 1.14    | -46.06         | -2.47               |
| 35GHz | 1.14      | 1.20    | -44.41         | -2.32               |
| 36GHz | 1.10      | 1.33    | -44.27         | -2.23               |
| 37GHz | 1.13      | 1.33    | -46.79         | -2.21               |
| 38GHz | 1.17      | 1.23    | -40.27         | -2.09               |
| 39GHz | 1.20      | 1.17    | -44.71         | -2.10               |
| 40GHz | 1.18      | 1.21    | -46.43         | -2.10               |
| 41GHz | 1.15      | 1.26    | -69.06         | -2.13               |
| 42GHz | 1.16      | 1.34    | -51.46         | -2.20               |
| 43GHz | 1.24      | 1.42    | -44.05         | -2.21               |
| 44GHz | 1.31      | 1.40    | -43.21         | -2.14               |
| 45GHz | 1.35      | 1.37    | -61.09         | -2.08               |
| 46GHz | 1.38      | 1.33    | -41.66         | -2.15               |
| 47GHz | 1.44      | 1.21    | -38.20         | -2.30               |
| 48GHz | 1.44      | 1.07    | -56.14         | -2.48               |
| 49GHz | 1.34      | 1.04    | -48.54         | -2.66               |
| 50GHz | 1.24      | 1.17    | -55.00         | -3.03               |



YERSON and its affiliates reserve the right to make changes to the products or information contained herein without prior notice. Please visit [www.yersontech.com](http://www.yersontech.com) for additional data-sheets and product information.